

# SOCIAL PHOBIA

A MEDICAL DICTIONARY, BIBLIOGRAPHY,  
AND ANNOTATED RESEARCH GUIDE TO  
INTERNET REFERENCES



**JAMES N. PARKER, M.D.**  
**AND PHILIP M. PARKER, PH.D., EDITORS**

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## FORWARD

In March 2001, the National Institutes of Health issued the following warning: "The number of Web sites offering health-related resources grows every day. Many sites provide valuable information, while others may have information that is unreliable or misleading."<sup>1</sup> Furthermore, because of the rapid increase in Internet-based information, many hours can be wasted searching, selecting, and printing. Since only the smallest fraction of information dealing with social phobia is indexed in search engines, such as **www.google.com** or others, a non-systematic approach to Internet research can be not only time consuming, but also incomplete. This book was created for medical professionals, students, and members of the general public who want to know as much as possible about social phobia, using the most advanced research tools available and spending the least amount of time doing so.

In addition to offering a structured and comprehensive bibliography, the pages that follow will tell you where and how to find reliable information covering virtually all topics related to social phobia, from the essentials to the most advanced areas of research. Public, academic, government, and peer-reviewed research studies are emphasized. Various abstracts are reproduced to give you some of the latest official information available to date on social phobia. Abundant guidance is given on how to obtain free-of-charge primary research results via the Internet. **While this book focuses on the field of medicine, when some sources provide access to non-medical information relating to social phobia, these are noted in the text.**

E-book and electronic versions of this book are fully interactive with each of the Internet sites mentioned (clicking on a hyperlink automatically opens your browser to the site indicated). If you are using the hard copy version of this book, you can access a cited Web site by typing the provided Web address directly into your Internet browser. You may find it useful to refer to synonyms or related terms when accessing these Internet databases. **NOTE:** At the time of publication, the Web addresses were functional. However, some links may fail due to URL address changes, which is a common occurrence on the Internet.

For readers unfamiliar with the Internet, detailed instructions are offered on how to access electronic resources. For readers unfamiliar with medical terminology, a comprehensive glossary is provided. For readers without access to Internet resources, a directory of medical libraries, that have or can locate references cited here, is given. We hope these resources will prove useful to the widest possible audience seeking information on social phobia.

*The Editors*

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<sup>1</sup> From the NIH, National Cancer Institute (NCI): <http://www.cancer.gov/cancerinfo/ten-things-to-know>.



## CHAPTER 1. STUDIES ON SOCIAL PHOBIA

### Overview

In this chapter, we will show you how to locate peer-reviewed references and studies on social phobia.

### The Combined Health Information Database

The Combined Health Information Database summarizes studies across numerous federal agencies. To limit your investigation to research studies and social phobia, you will need to use the advanced search options. First, go to <http://chid.nih.gov/index.html>. From there, select the "Detailed Search" option (or go directly to that page with the following hyperlink: <http://chid.nih.gov/detail/detail.html>). The trick in extracting studies is found in the drop boxes at the bottom of the search page where "You may refine your search by." Select the dates and language you prefer, and the format option "Journal Article." At the top of the search form, select the number of records you would like to see (we recommend 100) and check the box to display "whole records." We recommend that you type "social phobia" (or synonyms) into the "For these words:" box. Consider using the option "anywhere in record" to make your search as broad as possible. If you want to limit the search to only a particular field, such as the title of the journal, then select this option in the "Search in these fields" drop box. The following is what you can expect from this type of search:

- **Anxiety and the Irritable Bowel Syndrome: Psychiatric, Medical, or Both?**

Source: Journal of Clinical Psychiatry. 58(supplement 3): 51-61. 1997.

Contact: Available from Physicians Postgraduate Press, Inc. P.O. Box 752870, Memphis, TN 38175-2870.

Summary: The association between the irritable bowel syndrome (IBS) and psychiatric disorders is well-known to most clinicians, but the nature of the relationship is far from clear. There is an increased prevalence of psychiatric illness in IBS patients and an increase in IBS in psychiatric patients. Whether this association exists outside of treatment-seeking populations (i.e., in people with IBS who do not seek treatment) has not been well investigated. This article selectively reviews the existing literature regarding the association of IBS and psychiatric illness in both patient and nonpatient

samples. The author presents a model of the brain-gut interaction, and offers a discussion of the practical implications of this model for treating individuals with IBS. The author considers patients with IBS and general anxiety disorder (GAD), panic disorder, posttraumatic stress disorder (PTSD), **social phobia**, and mood disorders. The treatment model suggests that, even in patients without psychiatric disorders, neuroactive medications may be a useful tool in improving functioning in individuals whose functional GI disorders have not responded to standard, conservative measures. Appended to the article is a discussion between three physicians on the concepts presented. 2 figures. 2 tables. 51 references. (AA-M).

- **Fourteen-Year Follow-Up of Speech/Language-Impaired and Control Children: Psychiatric Outcome**

Source: Journal of the American Academy of Child and Adolescent Psychiatry. 40(1): 75-82. January 2001.

Contact: Available from Lippincott Williams and Wilkins. Subscription Department, P.O. Box 350, Hagerstown, MD 21740-0350. (800) 638-3030. Website: [www.aacap.org/journal/journal.htm](http://www.aacap.org/journal/journal.htm).

Summary: This article reports on a study undertaken to examine the association between early childhood speech and language disorders and young adult psychiatric disorders. In a longitudinal community study conducted in Ontario, Canada, interviewers administered structured psychiatric interviews to age 19 participants who were originally identified as speech impaired only, language impaired, or non-impaired at age 5. The first stage of the study took place in 1982 when participants were 5 years old, and the latest stage of the study took place between 1995 and 1997 when participants had a mean age of 19 years. This article examines the association between early childhood speech language status and young adult psychiatric outcome. The results showed that children with early language impairment had significantly higher rates of anxiety disorder in young adulthood compared with non-impaired children. The majority of participants with anxiety disorders had a diagnosis of **social phobia**. Trends were found toward associations between language impairment and overall and antisocial personality disorder rates. Males from the language impaired group had significantly higher rates of antisocial personality disorder compared with males from the control group. Age of onset and comorbidity did not differ by speech language status. The majority of participants with a disorder had more than one disorder. These results support the association between early childhood speech and language functioning and young adult psychiatric disorder over a 14 year period. This association underscores the importance of effective and early interventions. 1 figure. 3 tables. 36 references.

- **Psychodermatology: The Mind and Skin Connection**

Source: American Family Physician. 64(11): 1873-1878. December 1, 2001.

Contact: Available from American Academy of Family Physicians. 11400 Tomahawk Creek Parkway, Leawood, KS 66211-2672. (800) 274-2237 or (913) 906-6000. E-mail: [fp@aafp.org](mailto:fp@aafp.org). Website: [www.aafp.org](http://www.aafp.org).

Summary: This journal article provides health professionals with information on the classification and management of psychodermatologic disorders. A psychodermatologic disorder is a condition that involves an interaction between the mind and the skin. Psychodermatologic disorders can be broadly classified into psychophysiological disorders, primary psychiatric disorders, and secondary psychiatric disorders.

Psychophysiological disorders, such as psoriasis and eczema, are conditions that are frequently precipitated or exacerbated by emotional stress. Stress management classes, relaxation techniques, music, or exercise may benefit patients whose skin condition is precipitated or exacerbated by stress. Drug therapy with antianxiety medication may also be helpful. Primary psychiatric disorders involve conditions that result in self induced cutaneous manifestations, such as trichotillomania and delusions of parasitosis. Trichotillomania is a condition in which a person pulls out his or her own hair. A skin biopsy can be helpful in determining the diagnosis because the hair root undergoes a unique change called trichomalacia. Drugs used in the treatment of obsessive compulsive disorder can be helpful in the pharmacologic management of trichotillomania. Patients with delusions of parasitosis believe that their bodies are infested by some type of organism. The treatment for this condition is an antipsychotic medication called pimozide. The terms neurotic excoriations and psychologic excoriations are used when patients self inflict excoriations with their fingernails. Factitial dermatitis generally refers to a condition in which the patient uses something more elaborate than the fingernails to damage his or her skin. Tricyclic antidepressants may be used to treat these primary psychiatric disorders. Secondary psychiatric disorders are associated with disfiguring skin disorders. This disfigurement results in psychiatric problems, such as decreased self esteem, depression, or **social phobia**. 6 figures, 3 tables, and 21 references. (AA-M).

## Federally Funded Research on Social Phobia

The U.S. Government supports a variety of research studies relating to social phobia. These studies are tracked by the Office of Extramural Research at the National Institutes of Health.<sup>2</sup> CRISP (Computerized Retrieval of Information on Scientific Projects) is a searchable database of federally funded biomedical research projects conducted at universities, hospitals, and other institutions.

Search the CRISP Web site at [http://crisp.cit.nih.gov/crisp/crisp\\_query.generate\\_screen](http://crisp.cit.nih.gov/crisp/crisp_query.generate_screen). You will have the option to perform targeted searches by various criteria, including geography, date, and topics related to social phobia.

For most of the studies, the agencies reporting into CRISP provide summaries or abstracts. As opposed to clinical trial research using patients, many federally funded studies use animals or simulated models to explore social phobia. The following is typical of the type of information found when searching the CRISP database for social phobia:

- **Project Title: ALCOHOLISM: GENETIC EPIDEMIOLOGIC TWIN STUDY**

Principal Investigator & Institution: Heath, Andrew C.; Director, Missouri Alcoholism Research c; Psychiatry; Washington University Lindell and Skinker Blvd St. Louis, Mo 63130

Timing: Fiscal Year 2002; Project Start 01-MAR-1994; Project End 31-MAR-2005

Summary: This resubmission seeks continued funding for the Missouri Adolescent Female Twin Study (MOAFTS), a prospective genetic-epidemiologic survey of alcohol

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<sup>2</sup> Healthcare projects are funded by the National Institutes of Health (NIH), Substance Abuse and Mental Health Services (SAMHSA), Health Resources and Services Administration (HRSA), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDCP), Agency for Healthcare Research and Quality (AHRQ), and Office of Assistant Secretary of Health (OASH).

use and abuse/dependence and co-morbid psychopathology in adolescent and young adult women. During the first five years of the project, using a cohort-sequential sampling design, cohorts of 13.5, 15.5, 17.5 and 19.5 year-old twins have been ascertained from birth records over a 2-year period, with continued recruitment of new cohorts of 13 year-olds and 11 year-olds. The twins, together with at least one parent information, have been assessed using telephone diagnostic interviews (N=1730 pairs, including 249 minority pairs; N=3651 parents), with brief 1-year follow up interventions and self-report questionnaire assessments of twin pairs (N=1378 pairs to date) and 2-year follow-up interview assessments of twin pairs (N=477 pairs to date) and a parent informant (N=796 parents to date) still in progress. Detailed assessments of history of psychopathology (childhood inattention and hyperactivity, suicidality, lifetime histories of DSM-IV oppositional defiant and conduct disorders, major depression, **social phobia** and panic disorder) and alcohol and other substance use disorders (DSM-V alcohol dependence or abuse, nicotine dependence, illicit drug abuse/dependence), as well as other behavioral and environmental risk- factors (including parental psychopathology and perceived peer and sibling behaviors) have been made. In this competing continuation, we seek to continue detailed telephone diagnostic interview assessments with twin cohorts at ages 17.5, 19.5, 21.5, 23.5, and 25.5, as well as repeat assessments of mothers of 19-year olds, plus assessment of those fathers who have not previously been interviewed. Following these twin pairs through their period of highest risk for onset of alcohol dependence will provide a powerful basis for identifying mediators and risk-modifiers of genetic and environmental influences on alcohol dependence and harmful alcohol use in young women (see heuristic models in Figures a1 and bla- blc), including effects of partner influences and influences of peers at college or work, occupation and work environment and transitions to adult roles (full-time employment, marriage, parenthood) on drinking behavior and problems. It will provide preliminary data on genetic and environmental predictors of course and remission versus persistence on alcohol problems, issues that can be addressed with greatest power when the youngest cohorts are followed up in a proposal as they reach their mid to late 20s.

Website: [http://crisp.cit.nih.gov/crisp/Crisp\\_Query.Generate\\_Screen](http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen)

- **Project Title: ANATOMY OF THE PRIMATE AMYGDALOID COMPLEX**

Principal Investigator & Institution: Amaral, David G.; Professor; Psychiatry; University of California Davis Sponsored Programs, 118 Everson Hall Davis, Ca 95616

Timing: Fiscal Year 2002; Project Start 01-SEP-1986; Project End 30-JUN-2005

Summary: (adapted from applicant's abstract): The amygdala is a complex medial temporal lobe structure that has been implicated in the mediation of emotion and social behavior. Pathology of the amygdala has been associated with psychiatric conditions including anxiety, panic disorder and **social phobia**. Social impairment, the core deficit in autism, may also involve dysfunction of the amygdala. The overarching goal of this program of functional neuroanatomical research has been to establish the major intrinsic and extrinsic connections as well as the chemical neuroanatomy of the macaque monkey amygdaloid complex. This information goes some way in defining the neural circuitry mediating social cognition and provides targets for pharmacological modulation of amygdala-based psychopathology. During the current funding period, we have identified virtually all of the cortical inputs to the amygdala. We have also identified new intrinsic connections as we mapped the intra-amygdaloid pathways of the lateral, basal and accessory basal nuclei. We have also conducted detailed immunohistochemical and in situ hybridization studies of the GABA system. In this application we propose to extend our studies of the mature amygdala and to begin

research on the developing primate amygdala. We will also initiate studies of the human amygdala both in normal and autistic brains. In the mature monkey brain, we will use electron microscopy to examine the synaptic organization of amygdaloid projections to the neocortex. We will determine whether these projections terminate on principal neurons, interneurons or both. In the neonatal macaque monkey, we will use neural tract tracing techniques to examine the development of amygdaloid projections to the neocortex and neocortical projections to the amygdala. Our goal will be to determine when these connections are established in an adult fashion and how much reorganization occurs during the neonatal period. We will also investigate the distribution of serotonergic innervation of the mature and developing amygdala. Serotonin has been implicated in modulating social function, particularly aggression, but little is known concerning its normal distribution or development in the amygdala. For the first time, we will extend our observation in the monkey to the human amygdala. We hypothesize that the amygdala is dysfunctional in autism and we will attempt to determine whether a neuroanatomical/neurochemical abnormality can be established. We will conduct quantitative, stereological studies on the volume and cell number of the amygdala and its component nuclei and search for pathology of the GABA system, which may be particularly altered in the 30 percent of autistics who also have epilepsy.

Website: [http://crisp.cit.nih.gov/crisp/Crisp\\_Query.Generate\\_Screen](http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen)

- **Project Title: BASAL GANGLIA AND 5-HT IN RITUALISTIC SOCIAL DISPLAYS**

Principal Investigator & Institution: Baxter, Lewis R.; Professor; Psychiatry & Behav Neurobiol; University of Alabama at Birmingham Uab Station Birmingham, Al 35294

Timing: Fiscal Year 2002; Project Start 27-SEP-2001; Project End 02-SEP-2002

Summary: (provided by applicant): Ritualistic displays of social/territorial status are important regulators of intra-species interactions, reducing costs of competition for both individuals, and the group. Such ritualistic behaviors have similar forms across a wide range of land vertebrates (amniotes). When the brain mechanisms mediating them dysfunction in man, the result may be certain psychopathologies, such as those characteristic of obsessive compulsive disorder (OCD), Tourette's disorder (GTS), **social phobia**, and some mood disorders. Functional neuroimaging studies by the Principal Investigator and others suggest that cortico/limbic-basal ganglionic-thalamic (=BG) systems mediate symptoms seen in OCD and related depressions. Work with Anolis lizards suggest that amniote- generic dorsolateral (DL) vs. ventro-medial (VM) BG systems mediate generic dominant vs. submissive social displays, respectively. This work has also demonstrated an acute role for serotonin (5-HT) in determining whether dominant or submissive behaviors are expressed in a given context, and strongly suggest that Anolis 5-HT<sub>1B</sub> receptors determines the differential 5-HT flux related to dominant vs. submissive behavior. Our human and lizard findings together have lead to a thesis that BG systems are organized as cross-inhibitory DL vs. VM subsystems that interact to bias behavior toward generic dominant vs. submissive behavioral routines. When DL/VM BQ subsystem interactions dysfunction in humans, the result may be fixed, context-inappropriate behaviors, as seen in OCD/depressions (submissive/defeat), thus explaining the human PET findings. Conversely, aggressive states with stereotypic displays of dominance behavior (e.g., mania ,QTS), might have reciprocal BG system dysfunctions. Thus, a fuller understanding of how BQ systems interact and are regulated by 5-HT functions to mediate social/territorial display behaviors in an appropriate, easily manipulated model system is of value. By using pharmacological challenges, in vivo functional autoradiography, and in situ hybridization, we propose to

elucidate the proximate BG mechanisms by which male Anolis lizards are vectored to display dominant vs. subordinate social/territorial behavioral routines, and how these behaviors and their mediating brain functions are switched between these poles of status as a result of social/conflict experience.

Website: [http://crisp.cit.nih.gov/crisp/Crisp\\_Query.Generate\\_Screen](http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen)

- **Project Title: BRAIN IMAGING IN PANIC DISORDER AT HIGH-FIELD**

Principal Investigator & Institution: Friedman, Seth D.; Radiology; University of Washington Grant & Contract Services Seattle, Wa 98105

Timing: Fiscal Year 2004; Project Start 01-DEC-2003; Project End 30-NOV-2008

Summary: (provided by applicant): This five-year career development proposal will establish Dr. Seth D. Fdedman as an independent researcher who can develop, apply, and integrate rapid high-field multinuclear magnetic resonance spectroscopy (MRS) and peripheral physiological monitoring to study biological regulation in anxiety disorders. Towards this aim, a detailed curriculum of physics, digital signal processing, physiology, and statistical methods will be undertaken. Regular training visits to centers with critical expertise are also planned to facilitate technical and clinical skill development. The studies associated with this training experience will be conducted in three phases: (1) technical development and characterization of hyperventilation (HV) response in healthy control subjects, (2) clinical investigation of HV dysregulation in panic disorder subjects compared to healthy controls and **social phobia** subjects, and (3) pilot work focused on alternative challenges. In PD, a number of peripheral alterations are found at rest (increased sighing, low pCO<sub>2</sub>, and respiratory variability) and in response to HV, with delayed recovery of end-tidal pCO<sub>2</sub> commonly demonstrated. Importantly, anxiety level per se is not sufficient to produce this delayed recovery, since SP subjects, who will be used as anxious controls in the proposed studies, do not demonstrated altered pCO<sub>2</sub> recovery following HV. Central nervous system alterations of lactate production are also demonstrated in response to HV challenge in PD, a response suggested to be in excess of the observed metabolic alkalosis. By integrating time-resolved central and peripheral nervous system measures of physiological regulation, the components of altered physiology in PD will be elucidated.

Website: [http://crisp.cit.nih.gov/crisp/Crisp\\_Query.Generate\\_Screen](http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen)

- **Project Title: CD-ROM CHILD ANXIETY TREATMENT**

Principal Investigator & Institution: Harris, M S.; Workbook Publishing, Inc. 208 Llanfair Rd Ardmore, Pa 19003

Timing: Fiscal Year 2003; Project Start 14-MAR-2003; Project End 29-FEB-2004

Summary: (provided by applicant): This study will examine the feasibility and initial efficacy of a CD-ROM version of a cognitive-behavioral therapy (CBT) for anxiety disorders in youth. Anxiety disorders (Generalized Anxiety Disorder; **Social Phobia**; Separation Anxiety Disorder) are among the most prevalent psychopathological problems in youth and, if untreated, are said to be chronic in nature and to cause significant social and educational impairment. Recent empirical work based on randomized clinical trials suggests that various forms of CBT (e.g., individual, family, group) can be effective in reducing the presence of these very same anxiety disorders. Although studies have found a person-to-person therapeutic approach to be effective, anxious youth often do not seek help. The very nature of anxiety in youth includes a worrisome and perfectionist style and a self presentation that there isn't a problem. Therefore, many anxious youth do not seek or receive needed intervention. The use of a

CD-ROM version of the CBT could increase, by significant magnitude, the number of anxious youth for whom a CBT treatment would become available. Further, for the more than 40 million Americans who have no health insurance, or inadequate insurance, a more accessible and affordable treatment modality is needed. Researchers agree that an examination of the viability of cost-effective therapy approaches is critical. The primary goal of this Phase I project is to develop a 14-session CD-ROM version of the CBT and to examine its efficacy by comparing pre-post treatment to pre-post waitlist. A final total of 12 participants, ages 8-13 years, will have been assessed via a structured diagnostic interview (by a reliable independent evaluator) and self-report measures to determine the presence of an anxiety disorder and to evaluate changes before and after waitlist and before and after treatment (and at a 3-month follow-up after treatment completion). Successful completion of this Phase I project will enable a Phase II randomized clinical trial to evaluate the CD-ROM treatment versus the application of CBT in the customary one-to-one context. The long-term goals are to develop an effective and affordable CD-ROM version of CBT for anxious youth for use on PC-based (and Mac) systems that are available to a wide range of youth, educators, and therapists. Website: [http://crisp.cit.nih.gov/crisp/Crisp\\_Query.Generate\\_Screen](http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen)

- **Project Title: CHILD /ADOLESCENT ANXIETY MULTIMODAL TREATMENT STUDY**

Principal Investigator & Institution: Albano, Anne Marie.; Recanati Family Assistant Professor of p; Anesthesiology; New York University School of Medicine 550 1St Ave New York, Ny 10016

Timing: Fiscal Year 2002; Project Start 20-SEP-2002; Project End 31-MAY-2006

Summary: (provided by applicant): With point prevalence estimates ranging from 12 percent to 20 percent, anxiety disorders are among the most common conditions affecting children and adolescents. The three most commonly impairing childhood-onset anxiety disorders are separation anxiety disorder, **social phobia** and generalized anxiety disorder. As a group, these disorders routinely co-occur and cause clinically significant distress and impairment affecting school, social, and family functioning. Left untreated, these disorders leave children at risk for anxiety disorders, major depression and, in some cases, substance abuse extending into late adolescence and adulthood. Hence, effective treatments for childhood-onset anxiety disorders promise to alleviate and perhaps to prevent long-term morbidity and even mortality. In randomized controlled trials, we have shown that two monotherapies, cognitive-behavioral therapy (CBT) and the selective serotonin reuptake inhibitor (SSRI), fluvoxamine (FLV), are effective treatments for separation anxiety, **social phobia**, and generalized anxiety disorders in children and adolescents. Even though the monotherapies are effective a substantial number of patients remain symptomatic following treatment and, might have benefited from combined treatment. There are as yet no systematic, controlled studies comparing CBT and an SSRI, alone or in combination, against a control condition in the same patient population. This revised application proposes a four-year, six site, randomized controlled efficacy trial comparing cognitive-behavioral (CBT) and pharmacological treatment for youth ages 7 to 16 years with anxiety disorders. Phase 1 is a 12-week, random assignment acute efficacy study comparing CBT, FLV, their combination (n=90, each condition), and pill placebo control (n=48) in 318 (53/site) youth with DSM-IV primary diagnoses of separation anxiety, **social phobia**, and/or generalized anxiety disorder. Phase II involves a 6-month treatment maintenance period for Phase I responders. All subjects regardless of response status will be evaluated at all scheduled assessment points. In addition to comprehensive parent, child, clinician, and

teacher reports, the primary outcome variables will be assessed by blind independent evaluators. Manualized intervention and assessment protocols plus state-of-the-art quality assurance and adverse event monitoring procedures insure uniform cross-site administration of the study protocol.

Website: [http://crisp.cit.nih.gov/crisp/Crisp\\_Query.Generate\\_Screen](http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen)

- **Project Title: CHILD AND ADOLESCENT ANXIETY MULTISITE STUDY (CAMS)**

Principal Investigator & Institution: March, John S.; Associate Professor; Psychiatry; Duke University Durham, Nc 27706

Timing: Fiscal Year 2002; Project Start 21-SEP-2002; Project End 31-MAY-2006

Summary: (provided by applicant): With point prevalence estimates ranging from 12 percent to 20 percent, anxiety disorders are among the most common conditions affecting children and adolescents. The three most commonly impairing childhood-onset anxiety disorders are separation anxiety disorder, **social phobia** and generalized anxiety disorder. As a group, these disorders routinely co-occur and cause clinically significant distress and impairment affecting school, social, and family functioning. Left untreated, these disorders leave children at risk for anxiety disorders, major depression and, in some cases, substance abuse extending into late adolescence and adulthood. Hence, effective treatments for childhood-onset anxiety disorders promise to alleviate and perhaps to prevent long-term morbidity and even mortality. In randomized controlled trials, we have shown that two monotherapies, cognitive-behavioral therapy (CBT) and the selective serotonin reuptake inhibitor (SSRI), fluvoxamine (FLV), are effective treatments for separation anxiety, **social phobia**, and generalized anxiety disorders in children and adolescents. Even though the monotherapies are effective a substantial number of patients remain symptomatic following treatment and, might have benefited from combined treatment. There are as yet no systematic, controlled studies comparing CBT and an SSRI, alone or in combination, against a control condition in the same patient population. This revised application proposes a four-year, six site, randomized controlled efficacy trial comparing cognitive-behavioral (CBT) and pharmacological treatment for youth ages 7 to 16 years with anxiety disorders. Phase 1 is a 12-week, random assignment acute efficacy study comparing CBT, FLV, their combination (n=90, each condition), and pill placebo control (n=48) in 318 (53/site) youth with DSM-IV primary diagnoses of separation anxiety, **social phobia**, and/or generalized anxiety disorder. Phase II involves a 6-month treatment maintenance period for Phase I responders. All subjects regardless of response status will be evaluated at all scheduled assessment points. In addition to comprehensive parent, child, clinician, and teacher reports, the primary outcome variables will be assessed by blind independent evaluators. Manualized intervention and assessment protocols plus state-of-the-art quality assurance and adverse event monitoring procedures insure uniform cross-site administration of the study protocol.

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- **Project Title: CHILD/ADOLESCENT ANXIETY MULTIMODAL TREATMENT STUDY**

Principal Investigator & Institution: Birmaher, Boris; Associate Professor; Psychiatry; University of Pittsburgh at Pittsburgh 350 Thackeray Hall Pittsburgh, Pa 15260

Timing: Fiscal Year 2002; Project Start 18-SEP-2002; Project End 31-MAY-2006

Summary: (provided by applicant): With point prevalence estimates ranging from 12 percent to 20 percent, anxiety disorders are among the most common conditions

affecting children and adolescents. The three most commonly impairing childhood-onset anxiety disorders are separation anxiety disorder, **social phobia** and generalized anxiety disorder. As a group, these disorders routinely co-occur and cause clinically significant distress and impairment affecting school, social, and family functioning. Left untreated, these disorders leave children at risk for anxiety disorders, major depression and, in some cases, substance abuse extending into late adolescence and adulthood. Hence, effective treatments for childhood-onset anxiety disorders promise to alleviate and perhaps to prevent long-term morbidity and even mortality. In randomized controlled trials, we have shown that two monotherapies, cognitive-behavioral therapy (CBT) and the selective serotonin reuptake inhibitor (SSRI), fluvoxamine (FLV), are effective treatments for separation anxiety, **social phobia**, and generalized anxiety disorders in children and adolescents. Even though the monotherapies are effective a substantial number of patients remain symptomatic following treatment and, might have benefited from combined treatment. There are as yet no systematic, controlled studies comparing CBT and an SSRI, alone or in combination, against a control condition in the same patient population. This revised application proposes a four-year, six site, randomized controlled efficacy trial comparing cognitive-behavioral (CBT) and pharmacological treatment for youth ages 7 to 16 years with anxiety disorders. Phase 1 is a 12-week, random assignment acute efficacy study comparing CBT, FLV, their combination (n=90, each condition), and pill placebo control (n=48) in 318 (53/site) youth with DSM-IV primary diagnoses of separation anxiety, **social phobia**, and/or generalized anxiety disorder. Phase II involves a 6-month treatment maintenance period for Phase I responders. All subjects regardless of response status will be evaluated at all scheduled assessment points. In addition to comprehensive parent, child, clinician, and teacher reports, the primary outcome variables will be assessed by blind independent evaluators. Manualized intervention and assessment protocols plus state-of-the-art quality assurance and adverse event monitoring procedures insure uniform cross-site administration of the study protocol.

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- **Project Title: CHILDHOOD SOCIAL PHOBIA: LONG-TERM FOLLOW-UP**

Principal Investigator & Institution: Beidel, Deborah C.; Professor; Psychology; University of Maryland College Pk Campus College Park, Md 20742

Timing: Fiscal Year 2002; Project Start 01-JAN-2000; Project End 31-DEC-2004

Summary: Social phobia affects approximately 3-5 percent of children, and the prevalence rises as age increases. Youth with **social phobia** have significant fear of public speaking, reading or writing in public, going to parties, interacting with authority figures, using public restrooms and interacting in informal social gatherings. Clinical correlates include headaches or stomach aches, panic attacks, crying, avoidance, general anxiety, dysphoria, a sense of loneliness, and a very restricted range of social relationships. In extreme cases, school refusal or other behavioral problems may result. These children are deficient in the social skills necessary for normal social development. The disorder is chronic and onset prior to age 11 predicts non-recovery in adulthood. Also, other disorders frequently occur concurrently, most often generalized anxiety disorder, separation anxiety disorder and specific phobia. Recent findings indicate that a new psychosocial treatment (Social Effectiveness Therapy for Children; SET-C) is efficacious for children ages 8-12, resulting in reduction in emotional distress and improvement in social functioning, and the treatment effects have been maintained for up to 6 months. However, the long-term effects of this treatment, or any other treatment, for childhood **social phobia** are unknown. The study proposed in this application is

designed to extend the followup period for those children who were successfully treated with SET-C in our current study (MH53703). The study is designed to extend the followup period for these children to 5 years posttreatment. Assessments will include diagnostic interviews, self-report inventories, parental and clinician ratings, behavioral assessments of social skill, and daily diaries. This followup study will provide the longest followup to date for children treated for childhood **social phobia**. The assessment strategy is designed to allow for the determination of the durability of treatment, determination of risk factors for relapse or the development of other disorders, gauge academic, social, and emotional functioning. Data from this study will be particularly useful because the followup period will cover the children during the age of highest risk for **social phobia** (15-18 years).

Website: [http://crisp.cit.nih.gov/crisp/Crisp\\_Query.Generate\\_Screen](http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen)

- **Project Title: CLINICAL STUDIES OF HUMAN ANXIETY DISORDERS**

Principal Investigator & Institution: Weissman, Myrna M.; Professor; Columbia Univ New York Morningside 1210 Amsterdam Ave, Mc 2205 New York, Ny 10027

Timing: Fiscal Year 2003; Project Start 01-JAN-2003; Project End 31-DEC-2006

Summary: (provided by applicant): The overall aim of the Program Project Grant (PPG) is to understand the genetic basis for fear, anxiety and anxiety disorders in humans by identifying variant forms of genes that may contribute to pathological anxiety states. The underlying idea is that both learned and innate fear are tractable targets for genetic analyses in mice and humans. To accomplish this portion of the PPG dealing with human anxiety disorders Project 4 will provide well-characterized clinical samples and DNA from subjects with selected anxiety disorders (panic disorder, social anxiety disorder, and controls). Dimensional assessments of anxiety related temperaments, which cut across all clinical groups will provide another method for sample stratification. The clinical disorders have been selected where there is indication of heritability from family and/or twin studies; the clinical phenotypes are well defined and there is suggestive evidence for a relationship with fear conditioning and/or its neurobiological substrate and where hypotheses about candidate genes based on marker, treatment or pathophysiologic studies can be developed. To maximize the likelihood that we are selecting cases with genetic etiology, we will select cases from families with multiple affected individuals. The dimensional assessments have been selected because of prior promising associations with specific polymorphisms related to anxiety and evidence for heritability. Since issues of design and control groups have not been resolved, we will use both family based "triads" (probands and two biological parents) and population controls (matched for ethnicity). The central hypothesis is that there are similarities in fear conditioning circuitry between animal models and human and that genes involved in the pathways associated with fear conditioning or innate fear may be involved in the development of human anxiety disorders, particularly panic disorder, social anxiety disorder (social phobias), and/or neuroticism or anxiety sensitivity. The specific aims of this project are: identification, clinical characterization and DNA extraction of subjects with panic disorder (N= 150); social anxiety disorder (social phobia) (N=150); selected to be at high genetic risk for anxiety disorders; non ill matched controls also assessed on quantitative trait dimension (N=150). We will also collect bloods from the biological parents of the panic and social anxiety disorder probands.

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